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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/720,382

11/25/2003

Gon Kim

K-0564

4277

34610 7590 03/28/2007  
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EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/720,382

Applicant(s)

KIM ET AL.

Examiner

Jason P. Rigglesman

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's reply filed on 1/19/2007 is acknowledged. Current pending claims are 1-3, 5, and 7-9. Claims 1-3 and 5 have been amended, claims 4 and 6 are cancelled and claims 7-9 are new.
2. Applicant's arguments and amendments, filed 1/19/2007, have been fully considered and are persuasive with regards to the 102 (b) rejection of claim 1 over Cho (US Patent No. 6044510). This rejection is withdrawn. Also, the objections to the drawings are withdrawn. The 103 (a) rejections of claims 2-6 are withdrawn on the basis of the amendment to the claims. The applicant has failed to acknowledge the 112, second paragraph, rejections of claims 1-6. By virtue of amendment to the claims; however these rejections are withdrawn.
3. Applicant's arguments, filed 1/19/2007, have been fully considered and are not persuasive. The applicant argues that the prior art does not teach "(a) detecting selection of an automatic washing function by a user and (b) sensing a temperature of water supplied to the washing machine during performance of the automatic washing function".
4. The examiner asserts that Cho teaches at least all the limitations of amended claim 1. It is unclear what is detecting a selection of an "automatic" washing function by a user – since this is awkward claim language. What is detecting? What is selecting? Why is it automatic? Also, Cho teaches water temperature determination; however, the language is such that the applicant believes that the step (b) describes a different

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process – however it is not patentably distinct given the vague claim language of the instant application.

### ***Claim Objections***

5. Claims 1-3, 5, and 7-9 are objected to because of the following informalities: it is unclear as to what water temperature is being measured – in the tub or supply hoses? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The phrase "automatic washing function" in claims 1 and 5 is a vague term which renders the claim indefinite. Also, if the function is "automatic" – it is uncertain how the user can select or deselect it manually as described in claim 5. For purposes of examination, this is assumed to be – automatic washing program.

9. The term "washing condition" in claims 1-2, is unclear. For purposes of examination, this is assumed to be – washing time, washing temperature, or water level.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 7-8 are rejected under 35 U.S.C. 102(b) as being unpatentable by Cho (US Patent No. 6044510).

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**11.** Cho teaches a method for controlling a drum-type washing machine equipped with a manually selected automatic washing function (Columns 5-6, Lines 24-29 and Lines 0-2). The washing function (time and temperature subroutine) is selected by the user, S101, Fig. 2, the water temperature supplied to the washing machine is sensed, S104, and compared to a reference temperature (set temperature) during the washing function (subroutine) and laundry is washed based on a first-predetermined washing condition (S214) if the sensed temperature is above the reference temperature (set temperature) and washing the laundry based on a second predetermined washing condition (S202-S213) if the sensed temperature is below the reference temperature (set temperature) (Columns 3-4, Lines 59-67 and Lines 0-8). The washing conditions (subroutines) may comprise data about an optimal amount of washing water, a duration of time of respective temperatures measured in a measuring step, a rotational velocity of the drum and a period for change the rotational direction of the drum (Column 2, Lines 59-64). The washing function (subroutine) is also based on a predetermined washing time, S215, Fig. 3.

***Claim Rejections - 35 USC § 103***

**12.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claim 2 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Cho (US Patent No. 6044510), as applied to claim 1 above, in view of Harwood (US Patent No. 5768728).

14. Cho does not teach a step of sensing a load size; however, Harwood discloses such a method. Harwood teaches a process (Column 2, Lines 47-67 and Column 3, Lines 0-2) whereby a laundry washing machine automatically determines a load size and fills the tub to the water level, accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cho with Harwood to create an energy efficient automatic drum-type washing machine – which uses both water temperature and load size to determine the washing condition.

15. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (US Patent No. 6044510) and Harwood (US Patent No. 5768728), as applied to claims 1-2 above, and further in view of Knopp (US Patent No. 6425156).

16. In regards to claims 3 and 9, Cho (as modified by Harwood above) does not teach the washing conditions stored in a look-up table; however, Knopp teaches stored programs which allow the user to recall saved parameters such as water level in a tub, temperature of washing liquid, a drum speed, or a timing and a duration for particular processing steps during the operating program cycle (Column 3, Lines 27-39 and Column 2, Lines 57-63). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cho (as modified by Harwood above), with a look-up table to create a more efficient control for the automatic washing machine.

**17.** Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5133200) in view of Harwood (US Patent No. 5768728).

**18.** Tanaka et al. teaches a method of controlling a drum-type washing machine having a step of checking automatic or manual washing function selection, turning on water supply by input of a washing condition or turning on a water supply valve to sense water temperature if the automatic washing function is selected, Fig. 1. Supplying the water up to a setup water level, turning off the water, and performing a washing for the selected washing function based on a washing condition set up previously according to the sensed laundry amount and the sensed temperature of water, the performing includes -- performing a washing on a first washing condition if the water is cold (P4) or performing a washing on a second washing condition if the water is hot (P6). Tanaka et al. teaches a microcomputer incorporated in control device 13 for controlling a washing operation in accordance with key input by operation keys (not shown). When a fully automatic course wherein the wash, rinse, and dehydration steps are automatically executed sequentially is selected, the washing operation is controlled in accordance with predetermined washing conditions (control programs) stored in the microcomputer, Figs. 1 to 3.

**19.** Tanaka et al. does not teach a step of sensing a load size; however, Harwood discloses such a method. Harwood teaches a process (Column 2, Lines 47-67 and Column 3, Lines 0-2) whereby a laundry washing machine automatically determines a load size and fills the tub to the water level, accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka et al. with

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Harwood to create an energy efficient automatic drum-type washing machine – which uses both water temperature and load size to determine the washing condition.

***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggleman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

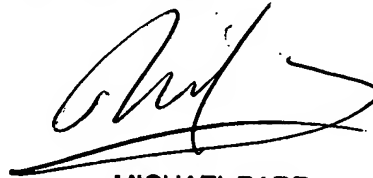


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JPR

Jason P Riggelman  
Examiner  
Art Unit 1746

A handwritten signature in black ink, appearing to read 'Michael Barr', with a stylized flourish at the end.

**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**